



**CITY OF HUNTINGTON BEACH
PUBLIC WORKS UTILITIES DIVISION
2005 CONSUMER CONFIDENCE REPORT**

This report is mandated by the Federal Environmental Protection Agency and replaces the Annual Water Quality Report previously required of California water retailers.

2005 Consumer Confidence Report

of Water Quality Testing Performed in 2004

Water System Name: City of Huntington Beach Public Works Utilities Division **Report Date:** April 2005

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

We test the drinking water quality for many constituents as required by State and Federal Regulations. This report shows the results of our monitoring for the period of January 1 – December 31, 2004.

Last year, as in years past, your tap water met all State and Federal drinking water health standards. The City of Huntington Beach Water Division vigilantly safeguards its water supplies and once again we are proud to report that our water system has never violated a Maximum Contaminant Level.

Our City Council meets on the first and third Mondays of each month at 6:00 pm. Information regarding Council meetings is available at the City Clerk's office on the 2nd floor of City Hall, 2000 Main Street, (714) 536-5227. Please feel free to participate in these meetings.

For more information contact: Derek Smith or Chad Blais

Phone: (714) 536-5921

The following are definitions of some of the terms used in this report.

- ❖ **Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.
- ❖ **Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency (USEPA).
- ❖ **Maximum Residual Disinfectant Level (MRDL):** The level of a disinfectant added for water treatment that may not be exceeded at the consumer's tap.
- ❖ **Maximum Residual Disinfectant Level Goal (MRDLG):** The level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLGs are set by the U.S. Environmental Protection Agency.
- ❖ **Primary Drinking Water Standards (PDWS):** MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.
- ❖ **Public Health Goal (PHG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.
- ❖ **Regulatory Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- ❖ **ND:** Not detected at testing limit.
- ❖ **NA:** Not applicable.
- ❖ **NS:** No standard.
- ❖ **NTU:** Nephelometric Turbidity Units.
- ❖ **ppm:** Parts per million, or milligrams per liter (mg/L).
- ❖ **ppb:** Parts per billion, or micrograms per liter (µg/L).
- ❖ **pCi/L:** Picocuries per liter (a measure of radiation).

Water Sources

Your drinking water is a blend of surface water imported by the Metropolitan Water District of Southern California (MWDSC), and groundwater pumped from the Santa Ana River basin. MWDSC's imported water sources are the Colorado River and the State Water Project, which draws water from the San Francisco-San Joaquin Bay Delta. Your groundwater comes from a natural underground reservoir managed by the Orange County Water District that stretches from the Prado Dam and fans across the northwestern portion of Orange County, excluding the communities of Brea and La Habra, and stretching as far south as the El Toro "Y".

An assessment of the drinking water sources for Huntington Beach was completed in December, 2002. The groundwater sources are considered most vulnerable to the following activities not associated with detected contaminants: Dry cleaners, Electrical/electronic manufacturing, Gas stations, Known Contaminant Plumes, Metal plating/finishing/fabricating, Military installations, Plastics/synthetics producers. You may request a summary of the assessment be sent to you by contacting Howard Johnson at (714) 536-5921.

Also in December of 2002, MWDSC completed its source water assessment of its Colorado River and State Water Project supplies. Colorado River supplies are considered to be most vulnerable to recreation, urban/storm water runoff, increasing urbanization in the watershed and wastewater. State Water Project supplies are considered to be most vulnerable to urban/storm water runoff, wildlife, agriculture, recreation and wastewater. A copy of the assessment can be obtained by contacting MWDSC at (213) 217-6850.

The City of Huntington Beach operates nine wells and are identified as **Well No. 1, Well No. 3A, Well No. 4, Well No. 5, Well No. 6, Well No. 7, Well No. 9, Well No. 10, and Well No. 13**. Three import water connections from the MWDSC for the City of Huntington Beach are identified as **OC 9, OC 35, and OC 44**.

Drinking Water Quality

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

In order to ensure that tap water is safe to drink, USEPA and the California Department of Health Services (CDHS) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

Contaminants that may be present in source water include:

- ❖ **Microbial contaminants**, such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- ❖ **Inorganic contaminants**, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- ❖ **Pesticides and herbicides**, which may come from a variety of sources such as agricultural, urban stormwater runoff, and residential uses.
- ❖ **Organic chemical contaminants**, including synthetic and volatile organic chemicals, that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- ❖ **Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.

Sampling Results

The following data tables list all of the drinking water contaminants that were detected during the most recent sampling for each constituent. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old.

SOURCE WATER QUALITY DATA

Chemical	Average Amount	Range of Detections	MCL	PHG (MCLG)	MCL Violation?	Typical Source of Contaminant
Radioactive Contaminants (pCi/L) – Tested in 2004						
Gross Alpha Particle	4	ND – 9.0	15	NA	No	Erosion of natural deposits
Gross Beta Particle	4.5	ND – 6.2	50	NA	No	Erosion of natural and manmade deposits
Uranium	3.7	ND – 8.0	20	0.5	No	Erosion of natural deposits
Inorganic Chemicals – Tested in 2004						
Aluminum (ppm) ¹	< 0.05	ND – 0.06	1	0.6	No	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic (ppb)	< 2	ND – 2.2	50	NA	No	Erosion of natural deposits
Barium (ppm)	< 0.1	ND - .01	1	2	No	Erosion of natural deposits; oil drilling waste
Fluoride (ppm)	0.38	0.10 – 0.47	2	1	No	Erosion of natural deposits
Nitrate as NO ₃ (ppm)	< 2	ND – 6.9	45	45	No	Runoff and leaching from fertilizer use; sewage; natural erosion
Nitrate + Nitrite (ppm)	< 0.4	ND – 1.6	10	10	No	Runoff and leaching from fertilizer use; sewage; natural erosion
Secondary Standards (Aesthetic Standards) – Tested in 2004						
Aluminum (ppb) ¹	< 50	ND - 55	200	600	No	Erosion of natural deposits; residue from some surface water treatment processes
Chloride (ppm)	60	14 - 173	500	NA	No	Runoff/leaching from natural deposits; Seawater influence
Color (color units)	2	ND - 8	15	NA	No	Erosion of natural deposits
Corrosivity (LSI)	0.14	0.03 – 0.29	Non-corrosive	N/A	No	Elemental balance in water; affected by temperature, other factors
Specific Conductance (micromhos)	629	371 - 1003	1600	NA	No	Substances that form ions when in water; seawater influence
Foaming Agents (ppb)	< 20	ND - 40	500	NA	No	Municipal and industrial waste discharges
Manganese (ppb)	< 20	ND - 27	50	NA	No	Erosion of natural deposits
Sulfate (ppm)	68	34 - 194	500	NA	No	Erosion of natural deposits; industrial wastes
Total Dissolved Solids (ppm)	373	218 - 574	1000	NA	No	Runoff/leaching from natural deposits; seawater influence
Turbidity (ntu)	0.1	ND – 0.6	5	NA	No	Soil Runoff
Unregulated Chemicals Requiring Monitoring ² – Tested in 2004						
Alkalinity (ppm)	152	76 – 186	NS	NA	No	Erosion of natural deposits
Bicarbonate (ppm)	185	99 – 227	NS	NA	No	Erosion of natural deposits
Boron (ppb)	< 0.1	ND – 0.16	NS	NA	No	Erosion of natural deposits; industrial wastes
Calcium (ppm)	69	23 – 105	NS	NA	No	Erosion of natural deposits
Hardness (ppm)	221	87 – 336	NS	NA	No	Erosion of natural deposits
Hardness (grains/gal)	13	5 – 20	NS	NA	No	Erosion of natural deposits
Magnesium (ppm)	12	3 – 22	NS	NA	No	Erosion of natural deposits
PH (units)	8.1	7.5 – 8.4	NS	NA	No	Erosion of natural deposits
Potassium (ppm)	2.9	2.0 – 4.0	NS	NA	No	Erosion of natural deposits
Radon (pCi/L)	261	ND – 382	NS	NA	No	Erosion of natural deposits
Sodium (ppm)	45	37 – 94	NS	NA	No	Erosion of natural deposits
Vanadium (ppb)	< 3	ND – 10.4	NS	NA	No	Naturally occurring; industrial wastes
MWDSC Turbidity – Tested in 2004						
Combined Filter Effluent ³	Treatment Technique		Turbidity Measurement		TT Violation?	Typical Source of Contamination
1) Highest single turbidity Measurement	1 NTU		0.10 NTU		No	Soil Runoff
2) Percentage of samples < 0.3 NTU	95%		100%		No	Soil Runoff

DISTRIBUTION SYSTEM WATER QUALITY DATA

Chemical	Average Amount	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	MCL Violation?	Typical Source Of Contaminant	
Disinfection By-Products and Disinfectant Residuals – Tested in 2004							
Total Trihalomethanes (ppb)	39	ND - 79	80	NA	No	By-product of drinking water chlorination	
Haloacetic Acids (ppb)	11	ND – 32	60	NA	No	By-product of drinking water chlorination	
Chlorine residual (ppm)	1.36	< 0.1 – 2.8	4.0	4.0	No	Disinfectant added for treatment	
Secondary Standards (Aesthetic Standards) – Tested in 2004							
Color (Units)	< 5	< 5	15	NA	No	Naturally occurring organic materials	
Odor Threshold	< 1	< 1	3	NA	No	Naturally occurring organic materials	
Turbidity (ntu)	0.07	0 – 0.55	5	NA	No	Soil runoff	
Microbiological Contaminants – Tested in 2004 ⁴							
	Highest % of Positive Samples in One Month		MCL	MCLG	MCL Violation?	Typical Source of Bacteria	
Total Coliform Bacteria	0%		5%	0	No	Naturally present in the environment	
Fecal Coliform or E. Coli	0		0	0	No	Human and animal fecal waste	
Lead and Copper Action Levels at Residential Taps - Tested in 2003 ⁵							
Contaminant	Number of Sites Collected	90 th Percentile Value	No. of Sites Exceeding Action Level	Action Level	PHG	MCL Violation?	Typical Source of Contaminant
Lead (ppb)	52	< 5	1	15	2	No	Corrosion of household plumbing
Copper (ppm)	52	0.26	0	1.3	0.17	No	Corrosion of household plumbing

¹ Aluminum has both a Primary and a Secondary Standard.

² Unregulated contaminant monitoring helps the EPA and CDHS determine where certain contaminants occur and whether the contaminants need to be regulated.

³ Turbidity is a measure of the cloudiness of the water, an indication of particulate matter, some of which might include harmful microorganisms. Low turbidity in MWDSC's treated water is a good indicator of effective filtration. Filtration is called a "Treatment Technique" (TT). A treatment technique is a required process intended to reduce the level of contaminants in drinking water that are difficult and sometimes impossible to measure directly.

⁴ No more than 5% of the monthly samples may be positive for total Coliform bacteria. The occurrence of two consecutive total coliform positive samples, one of which contains fecal coliform/E.coli, constitutes an acute MCL violation.

⁵ During 2003, 52 residences were tested for lead and copper at-the-tap. One of the samples exceeded the regulatory action level for lead. None of the samples exceeded the regulatory action level for copper. A regulatory action level (AL) is the concentration of a contaminant, if exceeded, triggers treatment or other requirements which a water system must follow.

Fluoridation

Per a 1972 voter preference, the City of Huntington Beach treats your water by adding fluoride for dental health. Fluoride occurs naturally in the City's groundwater supply. This natural level is supplemented and maintained within a range of 0.7 ppm to 1.3 ppm with an average of 0.9 ppm.

Noncompliance

On 4/12/04, a small portion of the City of Huntington Beach water distribution system was accidentally over-fluoridated. For about 24 hours, the City delivered highly fluoridated water that exceeded the MCL. This affected the area north of the 405 Freeway bordered by Newland Street and Edinger Avenue. Some water samples collected in the area detected fluoride levels up to 33 ppm. Some people who drink water containing fluoride in excess of the federal MCL of 4 ppm over many years may get bone disease, including pain and tenderness of the bones. Children who drink water containing fluoride in excess of the state MCL of 2 ppm may get mottled teeth. Immediately after discovery of the incident, the City isolated the affected area, notified the CDHS and the Orange County Health Care Agency, and flushed the water system in the surrounding area until the normal fluoride residuals below 1.3 ppm were measured. Notification letters were hand-delivered to all commercial and residential customers in the affected area.

Additional General Information on Drinking Water

Radon is a radioactive gas that you can't see, taste, or smell. It is found throughout the U.S. Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of homes. Radon can also get into indoor air when released from tap water from showering, washing dishes, and other household activities. Compared to radon entering the home through soil, radon entering the home through tap water will in most cases be a small source of radon in indoor air. Radon is a known human carcinogen. Breathing air containing radon can lead to lung cancer. Drinking water containing radon may also cause increased risk of stomach cancer. If you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy. Fix your home if the level of radon in your air is 4 picocuries per liter of air (pCi/L) or higher. There are simple ways to fix a radon problem that aren't too costly. For additional information, call EPA's Radon Hotline (800-SOS-RADON).

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline @ 1-800-426-4791.

Additional Water Quality Monitoring

In addition to the parameters listed in the Water Quality Data Tables, we have conducted monitoring for many additional Regulated and Unregulated organic chemicals as well as inorganic chemicals. This would include some of the chemicals regularly mentioned in the news such as **Chromium VI**, **MTBE**, and **Perchlorate**. These additional chemicals are not listed in this report because none of them were detected at or above the minimum detection level.